

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3 and 5-7 are presently pending in this case. Claims 1, 3, 5, and 6 are amended by the present amendment. As amended Claims 1, 3, 5, and 6 are supported by the original disclosure,¹ no new matter is added.

In the outstanding Official Action, Claims 1-3 and 5-7 were rejected under 35 U.S.C. §103(a) as unpatentable over Buckler et al. (U.S. Patent No. 5,030,984, hereinafter “Buckler”) in view of Kanbara (U.S. Patent No. 5,689,737).

The outstanding rejection is respectfully traversed.

Claim 1 recites in part:

normal equation generating means for generating a normal equation using a first equation wherein the pixel value of each of the pixels within said processing region is substituted into a model generated by said model generating means, and a second equation which constrains the relation between each of the pixels without said movement blurring occurring, ***said normal equation including a number of equations from the first equation and the second equation which is greater than or equal to a number of pixels without said movement blurring occurring.***

Buckler describes an apparatus for minimizing the effects of motion in the recording of an image including functional block 42, which adjusts light level based on motion.² The outstanding Office Action cited the processing described at column 6 of Buckler as “normal equation generating means,” the equation at column 6, line 63 of Buckler as “a first equation,” and the equation at column 6, line 29 of Buckler as “a second equation.”³ However, Buckler states at column 7, lines 30-32 that rearranging the two above-noted equations results in ***two equations and two unknowns***, the unknowns being x and y

¹See, e.g., the publication of the specification at paragraphs 1305, 1310, 1320, and 1321

²See Buckler, Figure 4, column 5, lines 48-49, and column 6, line 17 to column 7, line 35.

³See the outstanding Office Action at page 6, lines 6-15.

velocities. In contrast, the image $I(i,j)$ includes many more than two pixels. Thus, Buckler does not teach or suggest “said normal equation including a number of equations from the first equation and the second equation which is ***greater than or equal to a number of pixels without said movement blurring occurring***” as recited in amended Claim 1. Further, it is respectfully submitted that Kanbara does not cure these deficiencies of Buckler.

In fact, as Buckler describes using only two equations and two unknowns, the unknowns being x and y velocities instead of pixel values, it is respectfully submitted that Buckler teaches away from the claimed invention. Thus, there can be no suggestion or motivation to combine any other reference with Buckler to create the claimed invention.

Consequently, Claim 1 (and Claim 2 dependent therefrom) is patentable over Buckler in view of Kanbara.

Amended Claims 3 and 5 recite in part:

generating a normal equation using a first equation wherein the pixel value of each of the pixels within said processing region is substituted into a model generated by said modeling, and a second equation which constrains the relation between each of the pixels without said movement blurring occurring, ***said normal equation including a number of equations from the first equation and the second equation which is greater than or equal to a number of pixels without said movement blurring occurring.***

As noted above, the two equations described by Buckler and cited by the outstanding Office Action as “a first equation” and “a second equation” provide ***two equations and two unknowns***, the unknowns being x and y velocities. However, the image $I(i,j)$ includes many more than two pixels. Thus, Buckler does not teach or suggest “generating a normal equation” as recited in Claims 3 and 5. Further, it is respectfully submitted that Kanbara does not teach or suggest this feature either, and further there can be no suggestion or motivation to combine any other reference with Buckler to create the claimed invention, as Buckler

teaches away from the claimed invention. Consequently, Claims 3 and 5 are patentable over Buckler in view of Kanbara.

Amended Claim 6 recites in part:

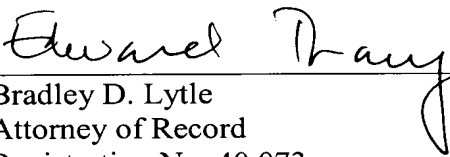
a normal equation generating unit configured to generate a normal equation using a first equation wherein the pixel value of each of the pixels within said processing region is substituted into a model generated by said model generating unit, and a second equation which constrains the relation between each of the pixels without said movement blurring occurring, ***said normal equation including a number of equations from the first equation and the second equation which is greater than or equal to a number of pixels without said movement blurring occurring.***

However, as noted above, Buckler does not teach or suggest any unit configured to generate a first and a second equation such that a number of equations from the first equation and the second equation is greater than or equal to a number of pixels without said movement blurring occurring. Thus, Buckler does not teach or suggest "a normal equation generating unit" as recited in amended Claim 6. Further, it is respectfully submitted that Kanbara does not cure these deficiencies of Buckler. Consequently, amended Claim 6 (and Claim 7 dependent therefrom) is also patentable over Buckler in view of Kanbara.

Accordingly, the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.


Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)

Edward W. Tracy, Jr.
Registration No. 47,998